Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 18:03:02 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 170 TO ITERATE

100.0% PROCESSED 170 ITERATIONS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 2618 TO 4182

PROJECTED ANSWERS:

146 TO 694

L2 21 SEA SSS SAM L1

=> s ll sss full

FULL SEARCH INITIATED 18:03:11 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 3305 TO ITERATE

100.0% PROCESSED 3305 ITERATIONS

449 ANSWERS

21 ANSWERS

SEARCH TIME: 00.00.01

L3 449 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE TOTAL

ENTRY SESSION 140.28 140.49

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 18:03:21 ON 18 DEC 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

: COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is

strictly prohibited.

FILE COVERS 1907 - 18 Dec 2002 VOL 137 ISS 25 FILE LAST UPDATED: 17 Dec 2002 (20021217/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> s 13

L4 3 L3

=> d 14 1-3 ibib abs hitstr

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 2002:832774 CAPLUS

DOCUMENT NUMBER:

137:325641

TITLE:

Processes for the synthesis of amino acid-related

benzyl epoxides used in the production of

pharmaceutical agents

INVENTOR(S):

Reeder, Michael R.

PATENT ASSIGNEE(S):

Blan Pharmaceuticals, Inc., USA; Pharmacia & Upjohn

Company

SOURCE:

PCT Int. Appl., 112 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT	NO.	KIN	ו מו	DATE			A	PPLI	CATI	ON NO	0.	DATE			
								_								
•	WO 2002	085877	A2	2 :	2002	1031		W	0 20	02-U	S125	91	2002	0423		
	W:	AE, AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
		CO, CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM, HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KΡ,	KR,	ΚZ,	LC,	LK,	LR,
		LS, LT,	LU,	LV,	ΜA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NO,	ΝZ,	OM,	PH,
		PL, PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TN,	TR,	TT,	TZ,
		UA, UG,	US,	UZ,	VN,	YU,	ZA,	ZM,	ZW,	AM,	ΑZ,	BY,	KG,	ΚZ,	MD,	RU,
		TJ, TM														
	RW:	GH, GM,	KΕ,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AT,	BE,	CH,
		CY, DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SB,	TR,
		BF, BJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG
PR:	IORITY APP	LN. INFO	. :				1	US 20	001-	2857	72P	P	2001	0423		
OTF GI	HER SOURCE	(S):		CASI	REAC'	r 13	7:32	5641	; MA	RPAT	137	: 325	641			

10/128,122

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

The invention provides amino acids R30NHCH(CH2R)CO2R1 [R = (un)substituted phenyl; R1 = allyl or (un)substituted alkyl, Ph, or benzyl; R30 = H or a protecting group], amino alcs. H2NCH(CH2R)CH(OH)CH2R2 [R2 = C1, Br, trialkylsilyl, or tri-substituted aminosilyl], corresponding epoxides, and other intermediates used in the prodn. of pharmaceutical agents. Thus, Boc-protected 3,5-difluoro-L-phenylalanine underwent sequential Me

d /

esterification, reaction with ClCH2I, borohydride redn., and conversion to epoxide I (KOH/EtOH). Ring opening of I with 3-methoxybenzylamine, deprotection, and acylation with 5-methyl-N,N-dipropylisophthalamic acid afforded amino alc. deriv. II.

388062-16-6P TΨ

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(synthesis of amino acid-related benzyl epoxides for prodn. of pharmaceuticals)

RN 388062-16-6 CAPLUS

1,3-Benzenedicarboxamide, N'-{(1S,2R)-1-[(3,5-difluorophenyl)methyl]-2-CN hydroxy-3-[[(3-methoxyphenyl)methyl]amino]propyl]-5-methyl-N,N-dipropyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:

2002:31402 CAPLUS

DOCUMENT NUMBER:

136:102190

TITLE:

Preparation of substituted amines to treat Alzheimer's

disease

INVENTOR(S):

Maillaird, Michel; Hom, Court; Gailunas, Andrea;

Jagodzinska, Barbara; Fang, Lawrence Y.; John, Varghese; Freskos, John N.; Pulley, Shon R.; Beck,

James P.; Tenbrink, Ruth E.

PATENT ASSIGNEE(S):

Elan Pharmaceuticals, Inc., USA; Pharmacia & Upjohn present rash

Company

SOURCE:

PCT Int. Appl., 651 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE WO 2002002512 A2 20020110 WO 2001-US21012 20010629 W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

```
-present-asp
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
            BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                          US 2001-896139
                                                           20010629
                      A1
                          20020912
    US 2002128255
                                       US 2000-215323PVP
                                                           20000630
PRIORITY APPLN. INFO.:
                                                           20001122 V
                                       US 2000-252736P ✓ P
                                       US 2000-255956P V P
                                                           20001215
                                       US 2001-268497P ✓ P
                                                           20010213
                                       US 2001-279779P√P
                                                           20010329
                                       US 2001-295589P P
                                                           20010604
```

OTHER SOURCE(S): MARPAT 136:102190 GI

$$\begin{array}{c|c} & \text{Me} & \text{OH} & \text{H} \\ & \text{N} & \text{OMe} \\ & & \text{O} & \text{F} \end{array}$$

The title compds. [I; R1 = (un) substituted alkyl, alkenyl, alkynyl, etc.; R2 = H, (un) substituted alkyl, alkenyl, etc.; R3 = H, (un) substituted alkyl, alkenyl, etc.; R4 = XR; X = CO, SO2, a bond, etc.; R = Ph, naphthyl, indanyl, etc.; R5 = (un) substituted alkyl, (CH2)0-3cycloalkyl, etc.], useful in treating Alzheimer's disease and other similar diseases, were prepd. Thus, reacting (2R,3S)-3-amino-4-(3,5-difluorophenyl)-1-[(3-methoxybenzyl)amino]-2-butanol trifluoroacetate with 5-methyl-N,N-dipropylisophthalamic acid in the presence of Et3N, 1-hydroxybenzotriazole and 1-(3-dimethylaminopropyl)-3-ethylcarbodiimide hydrochloride in DMF afforded (1S,2R)-II. The compds. I exhibit an IC50 of < 50 .mu.M against beta-secretase.

ΙI

IT 388066-36-2P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of substituted amines for treating Alzheimer's disease)

RN 388066-36-2 CAPLUS

CN Benzamide, 3-bromo-N-[(1R,2R)-2-hydroxy-3-[[(3-methoxyphenyl)methyl]amino]-1-(phenylmethyl)propyl]-5-methyl- (9CI) (CA INDEX NAME)

IT 388062-16-6P 388062-19-9P 388062-23-5P 388062-26-8P 388062-27-9P 388062-36-0P 388062-49-5P 388062-50-8P 388062-51-9P 388062-56-4P 388062-57-5P 388062-58-6P 388062-59-7P 388062-60-0P 388062-61-1P 388062-62-2P 388062-63-3P 388062-65-5P 388062-66-6P 388062-67-7P 388062-68-8P 388062-69-9P 388062-70-2P 388062-71-3P 388062-72-4P 388062-73-5P 388062-74-6P 388062-75-7P 388062-78-0P 388062-79-1P 388062-82-6P 388062-83-7P 388063-05-6P 388063-07-8P 388063-10-3P 388063-18-1P 388063-22-7P 388063-43-2P 388063-44-3P 388063-45-4P 388063-46-5P 388063-47-6P 388063-53-4P 388063-54-5P 388063-55-6P 388063-56-7P 388063-58-9P 388063-59-0P 388063-60-3P 388063-61-4P 388063-64-7P 388063-65-8P 388063-66-9P 388063-68-1P 388063-72-7P 388063-73-8P 388063-80-7P 388063-81-8P 388063-82-9P 388063-83-0P 388063-84-1P 388063-86-3P 388063-87-4P 388063-88-5P 388063-89-6P 388063-90-9P 388063-91-0P 388063-92-1P 388063-93-2P 388063-94-3P 388063-95-4P 388063-97-6P 388063-98-7P 388063-99-8P 388064-01-5P 388064-02-6P 388064-03-7P 388064-05-9P 388064-07-1P 388064-15-1P 388064-16-2P 388064-17-3P 388064-18-4P 388064-19-5P 388064-20-8P 388064-21-9P 388064-22-0P 388064-23-1P 388064-24-2P 388064-25-3P 388064-26-4P 388064-27-5P 388064-28-6P 388064-29-7P 388064-30-0P 388064-31-1P 388064-32-2P 388064-33-3P 388064-34-4P 388064-35-5P 388064-36-6P 388064-37-7P 388064-42-4P 388064-44-6P 388064-47-9P 388064-48-0P 388064-49-1P 388064-55-9P 388064-56-0P 388064-57-1P 388064-58-2P 388064-59-3P 388064-60-6P 388064-62-8P 388064-65-1P 388064-66-2P 388064-67-3P 388064-70-8P 388064-71-9P 388064-72-0P 388064-73-1P 388064-96-8P 388064-97-9P 388064-98-0P 388064-99-1P 388065-00-7P 388065-01-8P 388065-04-1P 388065-05-2P 388065-06-3P 388065-07-4P 388065-08-5P 388065-09-6P 388065-14-3P 388065-19-8P 388065-20-1P 388065-33-6P 388065-36-9P 388065-37-0P 388065-42-7P 388065-43-8P 388065-44-9P 388065-47-2P 388065-48-3P 388065-54-1P 388065-68-7P 388065-73-4P

388065-74-5P 388065-75-6P 388065-78-9P

```
388065-86-9P 388066-10-2P 388066-12-4P
388066-14-6P 388066-16-8P 388066-17-9P
388066-18-0P 388066-19-1P 388066-20-4P
388066-21-5P 388066-22-6P 388066-23-7P
388066-24-8P 388066-25-9P 388066-26-0P
388066-27-1P 388066-28-2P 388066-29-3P
388066-30-6P 388066-31-7P 388066-34-0P
388066-35-1P 388066-37-3P 388066-38-4P
388066-39-5P 388066-40-8P 388066-41-9P
388066-42-0P 388066-43-1P 388066-44-2P
388066-45-3P 388066-46-4P 388066-47-5P
388066-48-6P 388066-49-7P 388066-50-0P
388066-51-1P 388066-52-2P 388066-53-3P
388066-54-4P 388066-55-5P 388066-56-6P
388066-57-7P 388066-58-8P 388066-59-9P
388066-60-2P 388066-61-3P 388066-64-6P
388066-65-7P 388066-66-8P 388066-67-9P
388066-68-0P 388066-69-1P 388066-70-4P
388066-71-5P 388066-72-6P 388066-73-7P
388066-76-0P 388066-78-2P 388066-79-3P
388066-81-7P 388066-82-8P 388066-83-9P
388066-84-0P 388066-85-1P 388066-86-2P
388066-91-9P 388066-92-0P 388066-94-2P
388066-96-4P 388066-98-6P 388066-99-7P
388067-00-3P 388067-01-4P 388067-02-5P
388067-03-6P 388067-04-7P 388067-05-8P
388067-06-9P 388067-07-0P 388067-08-1P
388067-09-2P 388067-10-5P 388067-11-6P
388067-12-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
   (prepn. of substituted amines for treating Alzheimer's disease)
388062-16-6 CAPLUS
1,3-Benzenedicarboxamide, N'-[(1S,2R)-1-[(3,5-difluorophenyl)methyl]-2-
hydroxy-3-[[(3-methoxyphenyl)methyl]amino]propyl]-5-methyl-N,N-dipropyl-
(9CI)
      (CA INDEX NAME)
```

Absolute stereochemistry.

RN

CN

RN 388062-19-9 CAPLUS
CN 1,3-Benzenedicarboxamide, N'-[(15,2R)-2-hydroxy-1-(phenylmethyl)-3-[(phenylmethyl)amino)propyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

RN 388062-23-5 CAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2R)-2-hydroxy-3-[[(3-methoxyphenyl)methyl]amino]-1-(phenylmethyl)propyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 388062-26-8 CAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(15,2R)-3-[[(2-chlorophenyl)methyl]amino]-2-hydroxy-1-(phenylmethyl)propyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 388062-27-9 CAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2R)-3-[[(4-chlorophenyl)methyl]amino]-2-hydroxy-1-(phenylmethyl)propyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

: RN 388062-36-0 CAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(1S,2R)-3-[[(2-aminophenyl)methyl]amino]-2-

CN

(prepn. of substituted amines for treating Alzheimer's disease)

RN 388071-98-5 CAPLUS

1,3-Benzenedicarboxamide, N'-[(1S,2R)-2-hydroxy-3-[[(3-

methoxyphenyl)methyl]amino]-1-[[4-(phenylmethoxy)phenyl]methyl]propyl]-5-methyl-N-[4-(phenylmethoxy)butyl]-N-propyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

---OMe

L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:31396 CAPLUS

DOCUMENT NUMBER:

136:102189

TITLE:

Preparation of substituted amines for treating

Alzheimer's disease

INVENTOR (S):

Fang, Lawrence Y.; Hom, Roy; John, Varghese;

Maillaird, Michel

PATENT ASSIGNEE(S):

Elan Pharmaceuticals, Inc., USA

SOURCE:

PCT Int. Appl., 136 pp.

DOCUMENT TYPE:

CODEN: PIXXD2

LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

P	ľA	CENT	NO.		KI	ND	DATE			A	PPLI	CATI	ON NO	٥.	DATE			
-										-								
W	0	2002	0025	05	A	2	2002	0110		W	20	01-U	S208	52	2001	0629		
W	0	2002	0025	05	A.	3	2002	0801										
		W:	ΑE,	AG,	ΑL,	AM,	ΑT,	AT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	C2,	DB,	DE,	DK,	DK,	DM,	DZ,	EC,	EE,	EE,	ES,
			FI,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,
			ΚP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,
			MX,	MZ,	NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SK,	SL,	TJ,
			TM,	TR,	TT,	TZ,	UA,	υG,	UZ,	VN,	YU,	ZA,	ZW,	AM,	AZ,	BY,	KG,	KZ,

_

215

09/896874

MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG 20020207 US 2001-896874 20010629 US 2002016320 A1 Kumad Kumad US 2000-215323P\ 20000630 PRIORITY APPLN. INFO.: MARPAT 136:102189 OTHER SOURCE(S): GI R4 HN

R3

Ι

II

R1 R2

$$\begin{array}{c|c} & \text{Me} & \\ & & \text{OH} & \\ & & \text{OMe} \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ &$$

AB The title compds. [I; R1 = (un) substituted alkyl, alkenyl, alkynyl, etc.; R2 = H, (un) substituted alkyl; R3 = H, (un) substituted alkyl; or R2 and R3 are taken together with the carbon to which they are attached to form (un) substituted 3-7 membered carbo (or hetero) cycle; R4 = RX; X = CO, SO2; R = Ph, naphthyl, indanyl, etc.; R5 = alkyl, (CH2)0-3cycloalkyl, etc.], useful as .beta.-secretase inhibitors, were prepd. Thus, reacting (2S,3S)-3-amino-4-(3,5-difluorophenyl)-1-[(3-methoxybenzyl)amino]-2-butanol trifluoroacetate with N,N,-dipropylamidoisophthalic acid in the presence of Et3N, HOBt and EDC in CH2Cl2 afforded (1S,2S)-II.

IT 388077-90-5P 388077-92-7P

388077-90-5P 388077-92-7P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of substituted amines for treating Alzheimer's disease) RN 388077-90-5 CAPLUS

CN 1,3-Benzenedicarboxamide, N'-[(15,2S)-1-[(3,5-difluorophenyl)methyl]-2hydroxy-3-[[(3-methoxyphenyl)methyl]amino]propyl]-5-methyl-N,N-dipropyl-(9CI) (CA INDEX NAME)

RN388077-92-7 CAPLUS

1,3-Benzenedicarboxamide, N'-[(1S,2S)-1-[(3,5-difluorophenyl)methyl]-2-hydroxy-3-[(phenylmethyl)amino]propyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME) CN

phenylbutyl]amino]dihydro-4-oxo-2-phenyl-, [2S- $[2\alpha, 5\alpha(2S^*, 3R^*)]$]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 97549-62-7 CAPLUS

CN 2H-1,3-Thiazine-3(4H)-acetic acid, 5-[[3-(benzoylamino)-2-hydroxy-4phenylbutyl]amino]dihydro-4-oxo-2-phenyl-, [2S[2α,5α(2R*,3R*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1985:78746 CAPLUS

DOCUMENT NUMBER: (102:78746

TITLE: Lactam-containing compounds, their pharmaceutical

compositions and use

INVENTOR(S): Gordon, Eric M.; Karanewsky, Donald S.

PATENT ASSIGNEE(S): E. R. Squibb and Sons, Inc., USA

SOURCE: U.S., 13 pp. CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

E	'A'	TENT	NO.		KI	ND	DATE			API	PLICATION	NO.	DATE	
_														
υ	JS	4474	778		Α		1984	1002		US	1983-5499	31	19831	109
P	U	8435	220		A.	1	1985	0516		AU	1984-3522	0	19841	108
E	EΡ	1423	35		A	2	1985	0522		EP	1984-3077	23	19841	108
E	EΡ	1423	35		A.	3	1987	0513						
		R:	AT,	BE,	CH,	DE	, FR,	GB,	IT,	LI, 1	LU, NL, SE	;		
2	ľΑ	8408	743		Α		1985	0731			1984-8743		19841	108
-	ΙP	6011	5565		A.	2	1985	0622		JP	1984-2365	82	19841	109

PRIORITY APPLN. INFO.:

US 1983-549931

19831109

OTHER SOURCE(S):

CASREACT 102:78746

GT

RCONHCHR
1
XCH $_2$ NH O NCHR 3 CO $_2$ R 4
BzNHCH (CH $_2$ Ph) XCH $_2$ NH O II

Antihypertensive (no data) lactams I [n = 1-4; X = CO, CHOH; R = R5; R1 =AΒ H, alkyl, R5, cycloalkyl, cycloalkylalkyl, 3-indolyl, 3-indolylalkyl, hydroxyalkyl, imidazolylalkyl, aminoalkyl, mercaptoalkyl, alkylthioalkyl, guanidinoalkyl, carbamnoylalkyl; R2 = H, alkyl, cycloalkyl, cycloalkylalkyl, R5, R3 = H, alkyl, aminoalkyl, hydroxyalkyl, haloalkyl; R4 = H, alkyl, CH2Ph, CHPh2, 1-acyloxyalkyl, cation; R5 = (un)substituted Ph, phenylalkyl, thienyl, thienylalkyl, furyl, furylalkyl, pyridyl, pyridylalkyl] were prepared Thus, (S)-II (R4 = H, X = CO) was prepared from Me3CO2C-Lys(CO2CH2Ph)-OH and (S)-BzNHCH(CH2Ph)COCH2Cl in 6 steps. II (R4 = CH2Ph, X = CO) was reduced with NaBH4 and hydrogenolyzed over Pd-C to give II (R4 = H, X = CHOH).

93960-65-7P IT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and hydrogenolysis of)

93960-65-7 CAPLUS RN

1H-Azepine-1-acetic acid, 3-[[3-(benzoylamino)-2-hydroxy-4-CN phenylbutyl]amino]hexahydro-2-oxo-, phenylmethyl ester (9CI) (CA INDEX NAME)

93960-66-8P 93960-67-9P 93960-71-5P IT

93960-72-6P 93960-73-7P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

93960-66-8 CAPLUS RN

1H-Azepine-1-acetic acid, 3-[[3-(benzoylamino)-2-hydroxy-4-CN phenylbutyl]amino]hexahydro-2-oxo- (9CI) (CA INDEX NAME)

RN 93960-67-9 CAPLUS

CN 1H-Azepine-1-acetic acid, 3-[[3-(benzoylamino)-2-hydroxy-4-phenylbutyl]amino]hexahydro-2-oxo-, monosodium salt (9CI) (CA INDEX NAME)

Na

RN 93960-71-5 CAPLUS

CN 1H-Azonine-1-acetic acid, 3-[[3-(benzoylamino)-2-hydroxy-4-phenylbutyl]amino]octahydro-2-oxo- (9CI) (CA INDEX NAME)

RN 93960-72-6 CAPLUS

CN 1(2H)-Azocineacetic acid, 3-[[3-(benzoylamino)-2-hydroxy-4-phenylbutyl]amino]hexahydro-2-oxo- (9CI) (CA INDEX NAME)

RN 93960-73-7 CAPLUS

CN 1-Piperidineacetic acid, 3-[[3-(benzoylamino)-2-hydroxy-4-

09/288,556

phenylbutyl]amino]-2-oxo- (9CI) (CA INDEX NAME)

$$\begin{array}{c|cccc} & & & & & & CH_2-CO_2H \\ \downarrow & & & & & & \\ p_h-C-NH & OH & & & & \\ p_h-CH_2-CH-CH-CH_2-NH & & & & \\ \end{array}$$

=>

PAGE 1-A

PAGE 2-A

ANSWER 12 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1985:471331 CAPLUS

DOCUMENT NUMBER:

€ 103:71331

TITLE:

Acylamino oxo or hydroxy-substituted alkylamino

thiazines and thiazepines

INVENTOR(S):

Weller, Harold N., III; Gordon, Eric M.; Karanewsky,

Donald S.; Ryono, Denis E.

PATENT ASSIGNEE(S):

E. R. Squibb and Sons, Inc., USA

SOURCE:

U.S., 16 pp. CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4512988	A A1	19850423 19850912	US 1984-585058 AU 1985-39255	19840301 19850228

AU 577831	B2	19881006		
EP 154904	A1	19850918	EP 1985-102280	19850228
EP 154904	B1	19871028		
R: AT, BE,	CH, DE,	FR, GB, IT,	LI, LU, NL, SE	
ZA 8501555	Α	19851030	ZA 1985-1555	19850228
AT 30429	E	19871115	AT 1985-102280	19850228
CA 1242438	A1	19880927	CA 1985-475365	19850228
JP 60202870	A2	19851014	JP 1985-41770	19850301
JP 06088989	B4	19941109		
PRIORITY APPLN. INFO.	:		US 1984-585058	19840301
			EP 1985-102280	19850228
OTHER SOURCE(S):	CAS	REACT 103:71	.331	

GΙ

AΒ Antihypertensive (no data) thiazines and thiazepines I and II [R = H, alkyl, aminoalkyl, hydroxyalkyl, haloalkyl; R1 = H, alkyl, PhCH2, Ph2CH, Me3SiCH2CH2, salt forming ion, CHR7O2CR8 (R7 = H, alkyl, cycloalkyl, Ph; R8 = R7, alkoxy, PhCH2, PhCH2CH2); R2 = R3(CH2)mCONHCH[(CH2)nR4]C(Z); R3 = R3(CH2)mCONHCH[(CH2)nR4]C(Z)(substituted) Ph, thienyl, furyl, pyridyl; R4 = R3, OH, NH2, SH, halo, indolyl, imidazolyl, alkylthio, guanidino, carbamoyl, cycloalkyl; m = 0-4; n = 1-4; Z = O, (H, OH); R5, R6 = H, alkyl, cycloalkylalkyl, R5R6 = benzo; o = 1, 2] were prepared via inter- and intramol. cyclocondensations of cysteine derivs. Thus, cyclocondensation of N-phthaloyl-L-cysteine with PhCH:NCH2CO2Et gave thiazineacetate III as a mixture of diastereomers, the (2S)-isomer of which was transesterified with Me3SiCH2CH2OH, deprotected, alkylated with (S)-PhCH2CH(NHBz)COCH2Cl and hydrolyzed to give $[2S-[2\alpha,5\alpha(S)]]$ -thiazine IV.

IT 97246-59-8P 97549-62-7P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN97246-59-8 CAPLUS

2H-1,3-Thiazine-3(4H)-acetic acid, 5-[[3-(benzoylamino)-2-hydroxy-4-CN

PATENT INFORMATION:

FAMILY ACC, NUM, COUNT: τ

English **TYNCNYCE:**

Patent DOCUMENT TYPE:

CODEN: N2XXYW

.qq &1 ,.2.U SOURCE:

E. R. Squibb and Sons, Inc., USA PATENT ASSIGNEE(S):

Gordon, Eric M.; Karanewsky, Donald S. INVENTOR(S):

compositions and use

Lactam-containing compounds, their pharmaceutical :EITIT

DOCUMENT NUMBER: 105:78746

YCCESSION NUMBER: 1985:78746 CAPLUS

CAPLUS COPYRIGHT 2004 ACS on STN YNZMEK 13 OL 13

Absolute stereochemistry.

 $[S\alpha, S\alpha(SR, 3R)]$ (9CI) (CA INDEX NAME) phenylbutylaminoldihydro-4-oxo-2-phenyl-, [25-2H-1,3-Thiazine-3(4H)-acetic acid, 5-[[3-(benzoylamino)-2-hydroxy-4-СИ ВИ 97549-62-7 CAPLUS

Absolute stereochemistry.

 $[S\alpha, 5\alpha(Ss^{+}3R^{+})] - (9CI)$ (CA INDEX NAME) phenylbutyllaminoldihydro-4-oxo-2-phenyl-, [25-

999'887/60

AZABAT: 125:168656

20000328

61909661

INDEX NAME) $y\lambda q_{xox\lambda-3-}[(byeu\lambda fwefy\lambda f)gwfuo]brob\lambda f]-2-wefy\lambda f-N'N-qfbrob\lambda f-(6CI)$ (CY 1,3-Benzenedicarboxamide, N'-[(15,25)-1-[(3,5-difluorophenyl)methyl]-2-СИ ВИ 388077-92-7 CAPLUS

Absolute stereochemistry.

955'887/60

CI

OTHER SOURCE(S):

INVENTOR(S):

PRIORITY APPLN. INFO.:

US 6043357

8111196 UA

Яe Η (u-br) SM ö Н S ча HO

HIV protease inhibitors TITLE: DOCUMENT NUMBER: 152:168656 **YCCEZZION NUMBER:** 1996:506087 CAPLUS ANSWER 10 OF 13 CAPLUS COPYRIGHT 2004 ACS on STN

Dancer, Robert; Garnham, Bronwyn; Hunt, Peter;

Fairlie, David; March, Darren; Martin, Jennifer; Reid,

Abbenante, John; Bergman, Doug; Brinkworth, Ross;

′эм י\רן WD' WK' WN' WM' WX' NO' NZ' BT' BL' BO' BN' SD' SE' SG' 0569T96 OM 9090966T ĮΑ TI8UA-2661 OW DATE PATENT NO. KIND APPLICATION NO. PATENT INFORMATION: FAMILY ACC, NUM, COUNT: τ English **TYNCOYCE:** DOCOMENT TYPE: Patent CODEN: bIXXDS PCT Int. Appl., 84 pp. SOURCE: University of Queensland, Australia PATENT ASSIGNEE(S):

A

ÍΑ

TD, TG

'NS

2K

NE'

'IS

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

TI8UA-2001 OW

288-1994 UA

IL' IN' WC' NT' 51' ZE' BL' B1' CE' CE' CI' CW' GY' GN' WT' WB' EM: KE' T2' WM' 2D' 2Z' NC' YI' BE' CH' DE' DK' E2' EK' CB' CB' IE'

669678-7661 2U

81111-3661 UA

10951204

19941202

6060L66T

19951204

19951204

DATE

PAGE 2-A

PAGE 1-A

(byenlymethyl)propyl]-3-methyl- (9CI) (CA INDEX NAME) diazabicyclo[11.2.2]heptadeca-13,15,16-trien-11-yl]amino]-1-Benzamide, N-[2-hydroxy-3-[[8-(1-methylpropyl)-7,10-dioxo-2-oxa-6,9-СИ 112110-13-2 CMFINS ВИ (preparation of cyclic peptides as HIV protease inhibitors) study, unclassified); BIOL (Biological study) RL: BAC (Biological activity or effector, except adverse); BSU (Biological S-ET-OLTSLT ΤI inhibitory data 134 are tabulated for 134 synthesized cyclic peptides. derivative, coupling with resin-bound H-Pro-1le-Val-NH2, etc. HIV-1 protease O-alkylation of Boc-Tyr-OH, conversion to the tyrosylmethyl bromide were prepared Thus, cyclic peptide III (R and S isomers) was prepared via CH(COSH)CHSCHS, CH2CONHCHR1, where R1 = D- or L-amino acid, C1-C6 alkyl] chain, C1-C6 alkyl, cycloalkyl; X = (CH2)n (n = 3-6), CH(OH)CH(OH)CH2, C-terminal ring II or both rings I and II [R = Asn, Ile, Val, or Glu side HIV-1 protease inhibitors which include an N-terminal ring I or a

995'887/60